					DEPARTMENT	TATE OF UTAH TOF NATURAL RES DF OIL, GAS AND M			AMENDE	FOR ED REPORT		
			APPLICATI	ON FOR	PERMIT TO DRILL			1. WELL NAME and N	<b>UMBER</b> 5-12D-45	BTR		
2. TYPE (	OF WORK	DRILL NEW WE	ELL (TELL) RE	ENTER P&	A WELL DEEPEN	WELL (		3. FIELD OR WILDCA	T UNDESIGN	NATED		
4. TYPE (	OF WELL	DIVIDENTITY						5. UNIT or COMMUNI			NT NAM	E
							7. OPERATOR PHONE					
8. ADDRE	ESS OF OPERA	TOR	E	BILL BARRE	ETT CORP			9. OPERATOR E-MAI	303 312- L	8164		
10. MINE	RAL LEASE NU		1099 18th Stre	et Ste 230	00, Denver, CO, 80202	SHIP		BHilg  12. SURFACE OWNER	ers@billbar	rettcorp.c	om	
	L, INDIAN, OR					DIAN 📵 STATE (	FEE 💮		DIAN 📵	STATE	) FE	E
13. NAMI	E OF SURFAC	E OWNER (if box	12 = 'fee')					14. SURFACE OWNE	R PHONE (i	f box 12 =	'fee')	
15. ADDF	RESS OF SURF	ACE OWNER (if I	oox 12 = 'fee')					16. SURFACE OWNE	R E-MAIL (	if box 12 :	= 'fee')	
17. INDIA	N ALLOTTEE	OR TRIBE NAME			18. INTEND TO COMM		N FROM	19. SLANT				
(if box 1	2 = 'INDIAN')	Uintah and Ouray				Commingling Applicat	ion) NO 📵	VERTICAL DI	RECTIONAL	. 📵 но	ORIZONT	AL 🔵
20. LOCATION OF WELL FO				OOTAGES	QTR-QTR	SECTION	TOWNSHIP	RAN	IGE	ME	RIDIAN	
LOCATI	ON AT SURFA	CE		2121 FI	NL 917 FWL	SWNW	12	4.0 S	5.0	W		U
Top of I	Uppermost Pr	oducing Zone		1985 FI	NL 813 FWL	SWNW	12	4.0 S	5.0	W		U
At Tota	l Depth			1980 FI	NL 810 FWL	SWNW	12	4.0 S	5.0	w u		U
21. COU	NTY	DUCHESNE			22. DISTANCE TO NEA	REST LEASE LINE (F	eet)	23. NUMBER OF ACR	ES IN DRIL			
					25. DISTANCE TO NEA (Applied For Drilling		POOL	26. PROPOSED DEPT	<b>H</b> D: 9367 1	ΓVD: 9363		
27. ELEV	ATION - GROU	JND LEVEL 5926			28. BOND NUMBER	LPM8874725		29. SOURCE OF DRIL WATER RIGHTS APPR		BER IF AP	PLICABL	.E
					Hole. Casing	, and Cement Info	ormation					
String	Hole Size	Casing Size	Length	Weigh		_		Cement		Sacks	Yield	Weight
Cond	26	16	0 - 80	65.0	Unknown	8.8		No Used		0	0.0	0.0
Surf	12.25	9.625	0 - 2500	36.0	J-55 ST&C	8.8	Hallibu	rton Light , Type Unki	nown	360	3.16	11.0
							Halliburto	n Premium , Type Un	210	1.36	14.8	
Prod	8.75	5.5	0 - 9367	17.0	P-110 LT&C	9.6		Unknown			2.31	11.0
								Unknown		920	1.42	13.5
					A	TTACHMENTS						
	VE	RIFY THE FOL	LOWING AR	E ATTAC	CHED IN ACCORDAN	ICE WITH THE UT	AH OIL AND G	AS CONSERVATION O	SENERAL	RULES		
<b>✓</b> v	VELL PLAT OR	MAP PREPARED I	BY LICENSED	SURVEYO	R OR ENGINEER	<b>✓</b> CON	IPLETE DRILLING	PLAN				
A	FFIDAVIT OF S	TATUS OF SURFA	CE OWNER A	GREEMEN	T (IF FEE SURFACE)	FORI	M 5. IF OPERATO	R IS OTHER THAN THE L	EASE OWN	ER		
D D	IRECTIONAL S	URVEY PLAN (IF	DIRECTIONAL	LY OR HO	DRIZONTALLY DRILLED	) ГОРО	OGRAPHICAL MA	P				
NAME V	enessa Langm	acher		ТІТІ	LE Senior Permit Analys	t	PHONE 3	03 312-8172				
SIGNAT	URE			DA	ΓE 05/17/2012		EMAIL via	ngmacher@billbarrettcor	p.com			
	MBER ASSIGNE 01351427			APF	PROVAL		B	00. GYLLL				
							Peri	nit Manager				

### BILL BARRETT CORPORATION <u>DRILLING PLAN</u>

#### 5-12D-45 BTR

SW NW, 2121' FNL and 917' FWL, Section 12, T4S-R5W, USB&M (surface hole) SW NW, 1980' FNL and 810' FWL, Section 12, T4S-R5W, USB&M (bottom hole) Duchesne County, Utah

# 1 - 2. <u>Estimated Tops of Geological Markers and Formations Expected to Contain Water, Oil and Gas and Other Minerals</u>

<b>Formation</b>	Depth – MD	Depth - TVD
Lower Green River*	4,755'	4,753'
Douglas Creek	5,596'	5,593'
Black Shale	6,452'	6,448'
Castle Peak	6,677'	6,673'
Uteland Butte	7,007	7,003
Wasatch*	7,262'	7,258'
TD	9,367'	9,363'

\*PROSPECTIVE PAY

The Wasatch and the Lower Green River are primary objectives for oil/gas.

Base of Useable Water = 5,500'

#### 3. BOP and Pressure Containment Data

Depth Intervals BOP Equipment								
0 – 2,500' No pressure control required								
2,500' – TD	00' – TD							
	11" 5000# Annular BOP							
- Drilling spool to a	accommodate choke and kill lines;							
- Ancillary equipme	- Ancillary equipment and choke manifold rated at 5,000 psi. All BOP and BOPE tests will be in							
accordance with the	he requirements of onshore Order No. 2;							

- The BLM and the State of Utah Division of Oil, Gas and Mining will be notified 24 hours in advance of all BOP pressure tests.
- BOP hand wheels may be underneath the sub-structure of the rig if the drilling rig used is set up To operate most efficiently in this manner.

#### 4. <u>Casing Program</u>

Hole Size	SETTING DEPTH		Casing	Casing	Casing		
	(FROM)	<u>(TO)</u>	Size	Weight	<u>Grade</u>	<b>Thread</b>	Condition
26"	Surface	80'	16"	65#			
12 1/4"	Surface	2,500'	9 5/8"	36#	J or K 55	ST&C	New
8 3/4"	Surface	TD	5 ½"	17#	P-110	LT&C	New

RECEIVED: May 17, 2012

Bill Barrett Corporation Drilling Program 5-12D-45 BTR Duchesne County, Utah

#### 5. <u>Cementing Program</u>

16" Conductor Casing	Grout
9 5/8" Surface Casing	Lead: 360 sx Halliburton Light Premium with additives
	mixed at 11.0 ppg (yield = $3.16 \text{ ft}^3/\text{sx}$ ) circulated to surface
	with 75% excess. TOC @ Surface
	Tail: 210 sx Halliburton Premium Plus cement with
	additives mixed at 14.8 ppg (yield = $1.36 \text{ ft}^3/\text{sx}$ ), calculated
	hole volume with 75% excess. TOC @ 2,000'
5 ½" Production Casing	Lead: 650 sx Tuned Light cement with additives mixed at
	11.0 ppg (yield = $2.31 \text{ ft}^3/\text{sx}$ ). TOC @ $2,000^\circ$
	Tail: 920 sx Halliburton Econocem cement with additives
	mixed at 13.5 ppg (yield = $1.42 \text{ ft}^3/\text{sx}$ ). Top of cement to
	be determined by log and sample evaluation; estimated TOC
	@ 5,952'

#### 6. <u>Mud Program</u>

Interval	Weight	<u>Viscosity</u>	Fluid Loss (API filtrate)	<u>Remarks</u>
0'-80'	8.3 – 8.8	26 – 36	NC	Freshwater Spud Mud Fluid System
80' - 2,500'	8.3 – 8.8	26 – 36	NC	Freshwater Spud Mud Fluid System
2,500' – TD	8.6 – 9.6	42-52	20 cc or less	DAP Polymer Fluid System

Note: Sufficient mud materials to maintain mud properties, control lost circulation and to contain "kicks" will be available at wellsite. BBC may require minor amounts of diesel to be added to its fluid system in order to reduce torque and drag.

#### 7. Testing, Logging and Core Programs

Cores	None anticipated;
Testing	None anticipated; drill stem tests may be run on shows of interest;
Sampling	30' to 50' samples; surface casing to TD. Preserve samples all show intervals;
Surveys	MWD as needed to land wellbore;
Logging	DIL-GR-SP, FDC-CNL-GR-CALIPER-Pe-Microlog, Sonic-GR (all TD to surface).
	FMI & Sonic Scanner to be run at geologist's discretion.

#### 8. <u>Anticipated Abnormal Pressures or Temperatures</u>

No abnormal pressures or temperatures or other hazards are anticipated.

Maximum anticipated bottom hole pressure equals approximately 4674 psi\* and maximum anticipated surface pressure equals approximately 2614 psi\*\* (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

<sup>\*</sup>Max Mud Wt x 0.052 x TD = A (bottom hole pressure)

<sup>\*\*</sup>Maximum surface pressure = A - (0.22 x TD)

**Bill Barrett Corporation Drilling Program** 5-12D-45 BTR Duchesne County, Utah

#### 9. **Auxiliary Equipment**

- a) Upper kelly cock; lower Kelly cock will be installed while drilling
- b) Inside BOP or stab-in valve (available on rig floor)
- c) Safety valve(s) and subs to fit all string connections in use Mud monitoring will be visually observed

#### 10. **Location and Type of Water Supply**

Water for the drilling and completion will be trucked from the Duchesne City Culinary Water Dock located in Sec. 1, T4S, R5W water right number 43-180.

#### 11. **Drilling Schedule**

July 2013 Location Construction: July 2013 Spud:

Duration: 15 days drilling time

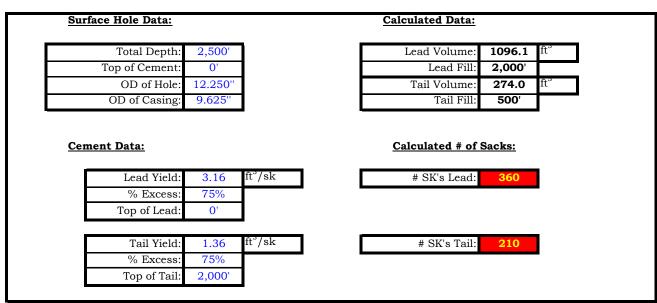
45 days completion time

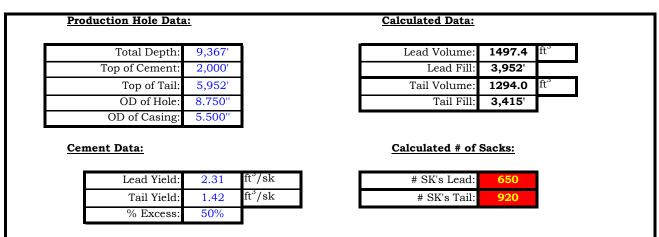
RECEIVED: May 17, 2012



#### LAKE CANYON & BLACK TAIL RIDGE CEMENT VOLUMES

Well Name: <u>5-12D-45 BTR</u>



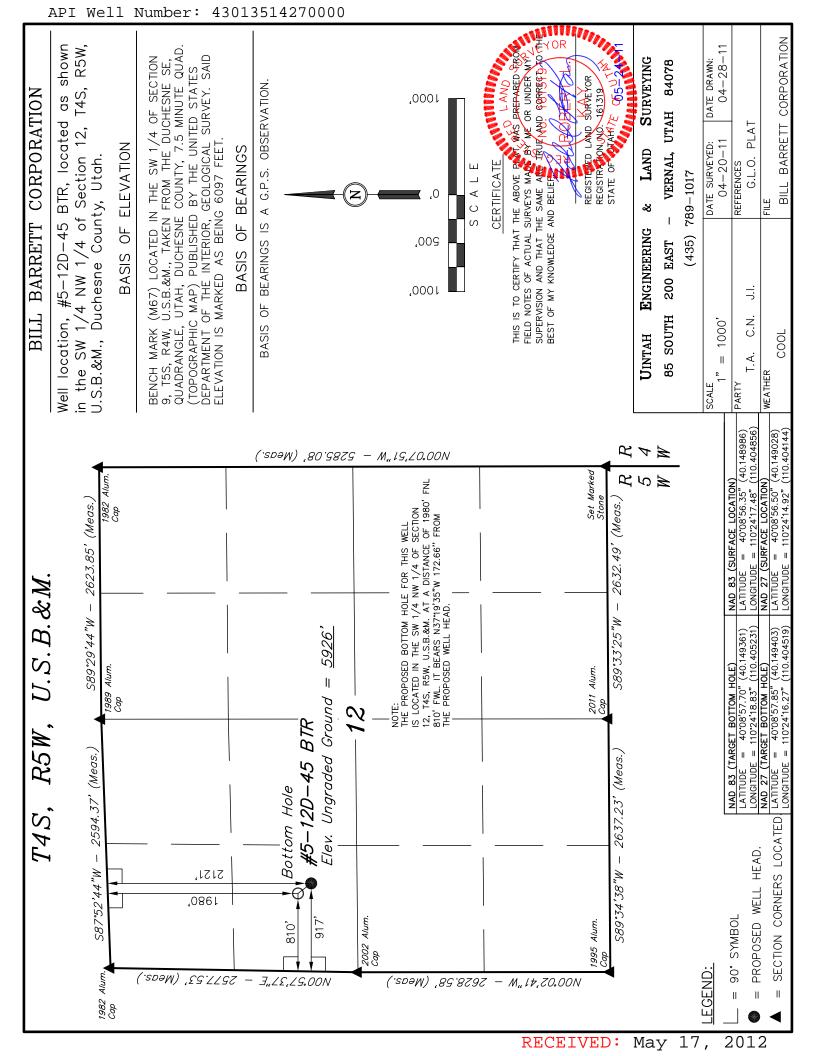


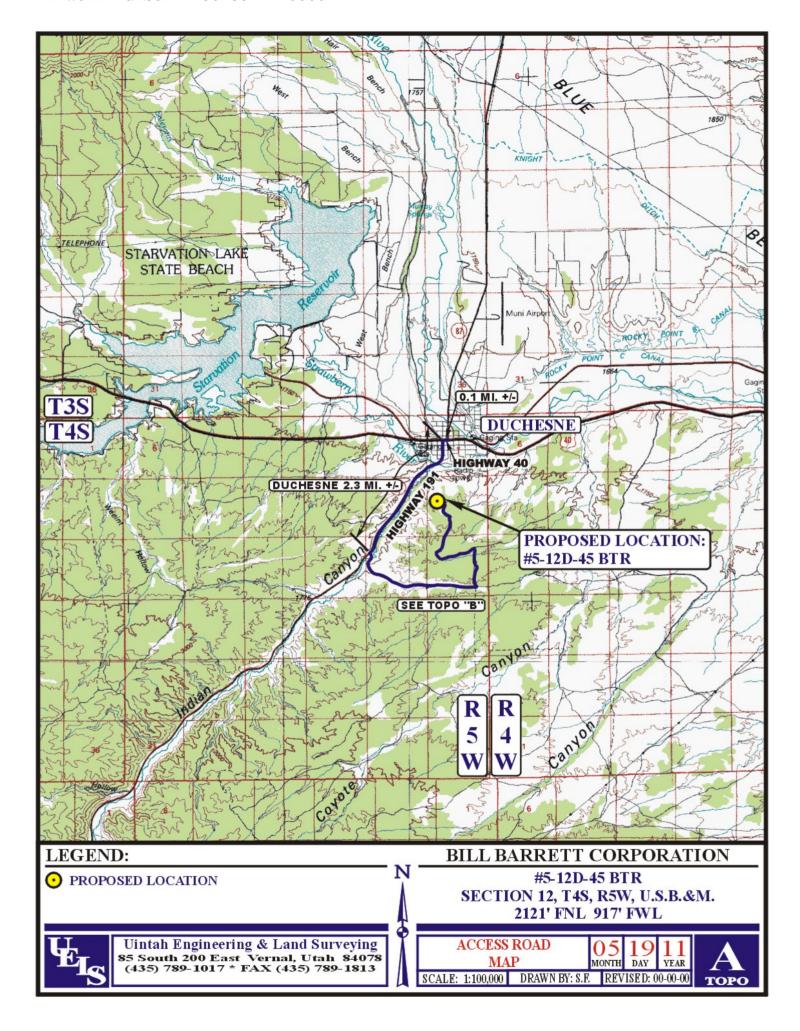
## 5-12D-45 BTR Proposed Cementing Program

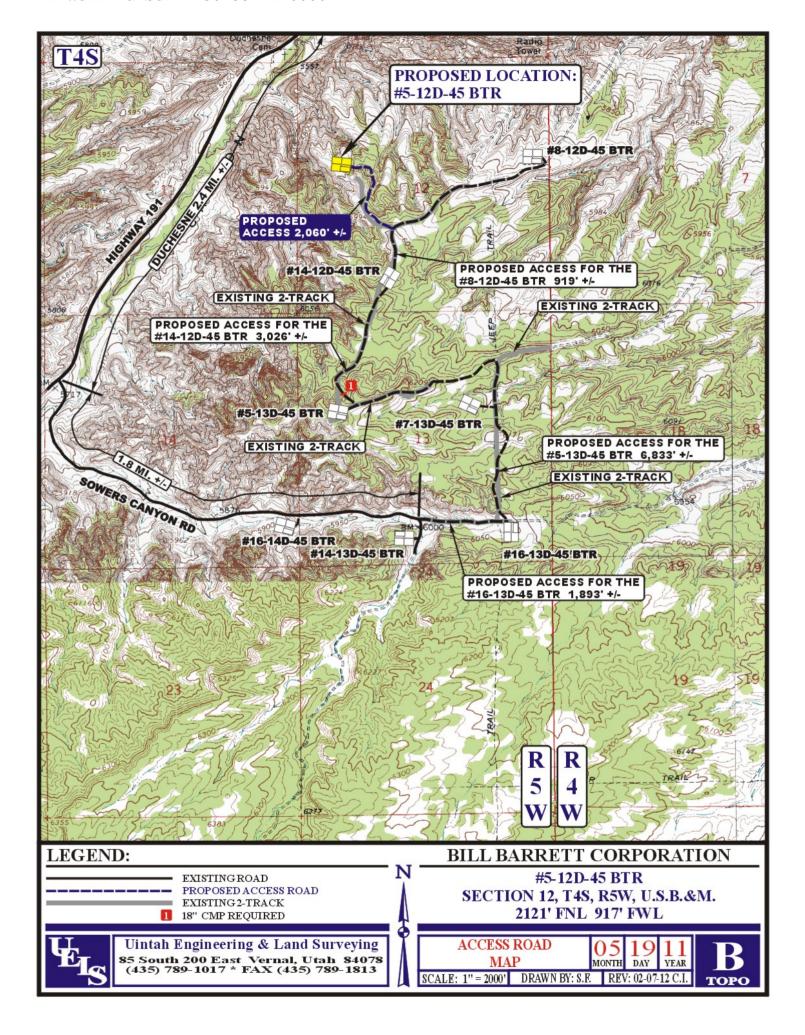
Job Recommendation		Sur	face Casing
Lead Cement - (2000' - 0')			
Halliburton Light Premium	Fluid Weight:	11.0	lbm/gal
5.0 lbm/sk Silicalite Compacted	Slurry Yield:	3.16	ft <sup>3</sup> /sk
0.25 lbm/sk Kwik Seal	Total Mixing Fluid:	19.48	Gal/sk
0.125 lbm/sk Poly-E-Flake	Top of Fluid:	0'	
2.0% Bentonite	Calculated Fill:	2,000'	
	Volume:	195.22	bbl
	Proposed Sacks:	360	sks
Tail Cement - (TD - 2000')			
Premium Cement	Fluid Weight:	14.8	lbm/gal
2.0% Calcium Chloride	Slurry Yield:	1.36	ft <sup>3</sup> /sk
	Total Mixing Fluid:	6.37	Gal/sk
	Top of Fluid:	2,000'	
	Calculated Fill:	500'	
	Volume:	48.80	bbl
	<b>Proposed Sacks:</b>	210	sks

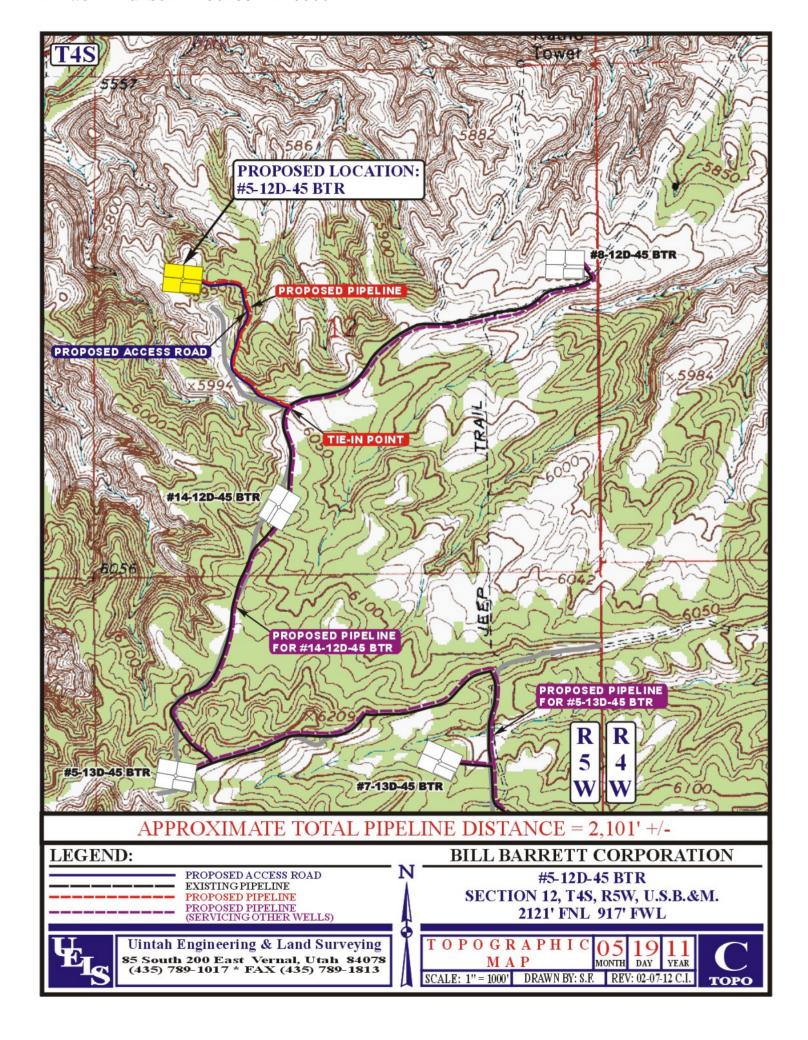
Job Recommendation		Produc	tion Casing
Lead Cement - (5952' - 2000')			
Tuned Light <sup>™</sup> System	Fluid Weight:	11.0	lbm/gal
	Slurry Yield:	2.31	ft <sup>3</sup> /sk
	Total Mixing Fluid:	10.65	Gal/sk
	Top of Fluid:	2,000'	
	Calculated Fill:	3,952'	
	Volume:	266.67	bbl
	Proposed Sacks:	650	sks
Tail Cement - (9367' - 5952')			
Econocem <sup>TM</sup> System	Fluid Weight:	13.5	lbm/gal
0.125 lbm/sk Poly-E-Flake	Slurry Yield:	1.42	ft <sup>3</sup> /sk
1.0 lbm/sk Granulite TR 1/4	Total Mixing Fluid:		Gal/sk
	Top of Fluid:	5,952'	
	Calculated Fill:	3,415'	
	Volume:	230.46	bbl
	Proposed Sacks:	920	sks

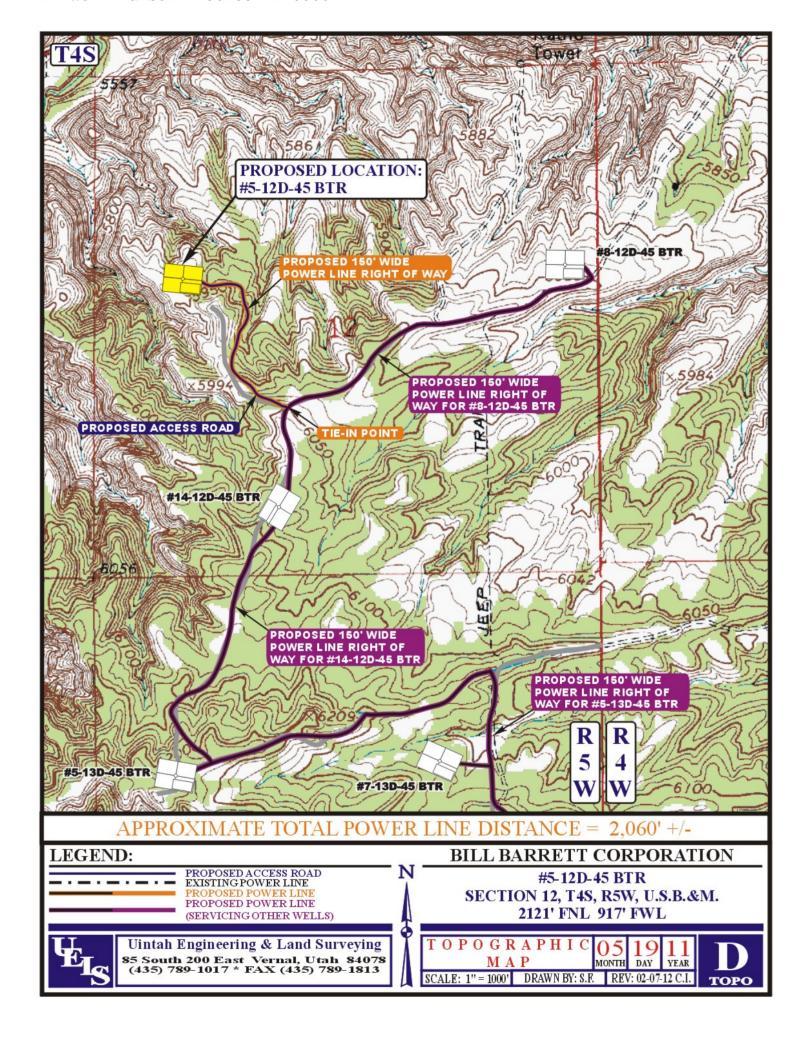
RECEIVED: May 17, 2012











Number: 43013514270000

**Bill Barrett Corporation** 

**COMPANY DETAILS: BILL BARRETT CORP** 

Calculation Method: Minimum Curvature

Error System: ISCWSA Scan Method: Closest Approach 3D

Error Surface: Elliptical Conic Warning Method: Error Ratio

SITE DETAILS: 5-12D-45 BTR Blacktail Ridge

Site Latitude: 40° 8' 56.501 N Site Longitude: 110° 24' 14.918 W

Positional Uncertainity: 0.0 Convergence: 0.70 Local North: True

WELL DETAILS: 5-12D-45 BTR

Ground Level: 5926.0

Longitude 110° 24' 14.918 W +E/-W Northing +N/-S Easting Latittude Slot 663205.38 40° 8' 56.501 N 0.0 0.0 2306323.85

WELLBORE TARGET DETAILS (LAT/LONG) +N/-S +E/-W TVD Latitude Longitude Shape 5-12D-45 BTR 3PT MKR6048.0 110° 24' 16.268 W Rectangle (Sides: L200.0 W200.0) 136.6 -104.8 40° 8' 57.851 N 110° 24' 16.268 W 5-12D-45 BTR PBHL -104.8 40° 8' 57.851 N Rectangle (Sides: L200.0 W200.0) 136.6 9363.0

SECTION DETAILS Sec MD Inc Azi TVD +N/-S +E/-W DLeg **TFace** VSec Target 0.0 0.00 0.00 0.0 0.0 0.0 0.00 0.00 0.0 0.00 2 0.0 2500.0 0.00 0.00 2500.0 0.0 0.00 0.0 3 2696.0 2.94 322.50 2696.0 4.0 -3.1 1.50 322.50 5.0 4 132.6 -101.8 5856.3 2.94 322.50 5852.0 0.00 0.00 167.2 6052.3 0.00 0.00 6048.0 136.6 -104.8 1.50 180.00 172.2 5-12D-45 BTR 3PT MKR 5-12D-45 BTR PBHL 9363.0 136.6 -104.8 0.00 9367.3 0.00 0.00 0.00 172.2

#### CASING DETAILS

No casing data is available

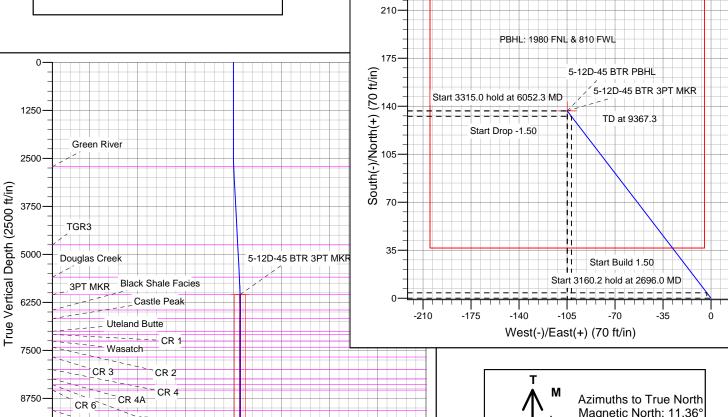
CR 5

-1250

CR 7

-3750

10000



5-12D-45 BTR PBHL

2500

3750

5000

1250

Vertical Section at 322.50° (2500 ft/in)



Azimuths to True North Magnetic North: 11.36°

FORMATION TOP DETAILS

Formation

3PT MKR Black Shale Facies

Castle Peak

**Uteland Butte** 

Douglas Creek

TGR3

CR 1

CR 2

CR 3 CR 4 CR 4A

CR 5

CR 6

CR 7

Wasatch

**MDPath** 

4755.8 5596.9

6052.3

6452.3

7007.3

7087.3

7262.3

7677.3

8007.3

8247.3

8397.3

8537.3

9067.3

TVDPath

2713.0

4753.0

5593.0

6048.0

6448.0

6673.0

7003.0 7083.0

7258.0

7418.0

7673.0

8003.0

8243.0

8393.0

8533.0

9063.0

Magnetic Field Strength: 52190.8snT Dip Angle: 65.79° Date: 4/18/2012 Model: IGRF2010

## **BILL BARRETT CORP**

DUCHESNE COUNTY, UT (NAD 27) 5-12D-45 BTR 5-12D-45 BTR

5-12D-45 BTR

Plan: Design #1

# **Standard Planning Report**

18 April, 2012

#### **Bill Barrett Corp**

Planning Report

Compass Database:

Company: **BILL BARRETT CORP** 

Project: DUCHESNE COUNTY, UT (NAD 27)

Site: 5-12D-45 BTR Well: 5-12D-45 BTR Wellbore: 5-12D-45 BTR Design #1 Design:

**Local Co-ordinate Reference:** 

**TVD Reference:** MD Reference: North Reference:

**Survey Calculation Method:** 

Well 5-12D-45 BTR

KB @ 5942.0ft (Original Well Elev) KB @ 5942.0ft (Original Well Elev)

True

Minimum Curvature

Project DUCHESNE COUNTY, UT (NAD 27)

US State Plane 1927 (Exact solution) Map System: NAD 1927 (NADCON CONUS)

Geo Datum:

Utah Central 4302 Map Zone:

System Datum: Ground Level

5-12D-45 BTR Site

Northing: 663,205.38 ft Site Position: Latitude: 40° 8' 56.501 N From: Lat/Long Easting: 2,306,323.85 ft Longitude: 110° 24' 14.918 W **Position Uncertainty:** 0.0 ft Slot Radius: **Grid Convergence:** 0.70 °

Well 5-12D-45 BTR

**Well Position** +N/-S 0.0 ft Northing: 663,205.38 ft Latitude: 40° 8' 56.501 N +E/-W 0.0 ft Easting: 2,306,323.85 ft Longitude: 110° 24' 14.918 W **Position Uncertainty** 0.0 ft Wellhead Elevation: ft **Ground Level:** 5,926.0 ft

Wellbore 5-12D-45 BTR Magnetics **Model Name** Sample Date Declination **Dip Angle** Field Strength (nT) (°) (°) IGRF2010 4/18/2012 11.36 65.79 52,191

Design #1 Design **Audit Notes:** Tie On Depth: Version: Phase: PLAN 0.0 Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.0 322.50 0.0 0.0

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,696.0	2.94	322.50	2,696.0	4.0	-3.1	1.50	1.50	0.00	322.50	
5,856.3	2.94	322.50	5,852.0	132.6	-101.8	0.00	0.00	0.00	0.00	
6,052.3	0.00	0.00	6,048.0	136.6	-104.8	1.50	-1.50	0.00	180.00	5-12D-45 BTR 3PT M
9,367.3	0.00	0.00	9,363.0	136.6	-104.8	0.00	0.00	0.00	0.00	5-12D-45 BTR PBHL

DUCHESNE COUNTY, UT (NAD 27)

#### **Bill Barrett Corp**

**Planning Report** 

Database: Compass

Project:

Company: BILL BARRETT CORP

 Site:
 5-12D-45 BTR

 Well:
 5-12D-45 BTR

 Wellbore:
 5-12D-45 BTR

 Design:
 Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well 5-12D-45 BTR

KB @ 5942.0ft (Original Well Elev) KB @ 5942.0ft (Original Well Elev)

True

Minimum Curvature

Design:	Design #1								
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0 0.0	0.0	0.00 0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0		0.0		0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	1.50	322.50	2,600.0	1.0	-0.8	1.3	1.50	1.50	0.00
2,696.0	2.94	322.50	2,696.0	4.0	-3.1	5.0	1.50	1.50	0.00
2,700.0	2.94	322.50	2,699.9	4.2	-3.2	5.2	0.00	0.00	0.00
2,713.1	2.94	322.50	2,713.0	4.7	-3.6	5.9	0.00	0.00	0.00
Green River									
2 900 0	2.04	222.50	2.700.9	0.0	6.2	10.4	0.00	0.00	0.00
2,800.0 2,900.0	2.94 2.94	322.50 322.50	2,799.8 2,899.6	8.2 12.3	-6.3 -9.4	10.4	0.00 0.00	0.00 0.00	0.00 0.00
3,000.0	2.94 2.94	322.50	2,899.5	16.4	-9. <del>4</del> -12.6	15.5 20.6	0.00	0.00	0.00
3,100.0	2.94 2.94	322.50	2,999.5 3.099.4	20.4	-12.6 -15.7	25.8	0.00	0.00	0.00
3,100.0	2.94	322.50	3,199.3	24.5	-18.8	30.9	0.00	0.00	0.00
3,300.0	2.94	322.50	3,299.1	28.6	-21.9	36.0	0.00	0.00	0.00
3,400.0	2.94	322.50	3,399.0	32.6	-25.0	41.1	0.00	0.00	0.00
3,500.0	2.94	322.50	3,498.9	36.7	-28.2	46.3	0.00	0.00	0.00
3,600.0 3,700.0	2.94	322.50	3,598.7	40.8	-31.3 -34.4	51.4	0.00	0.00	0.00 0.00
	2.94	322.50	3,698.6	44.9		56.5	0.00	0.00	
3,800.0	2.94	322.50	3,798.5	48.9	-37.5	61.7	0.00	0.00	0.00
3,900.0	2.94	322.50	3,898.3	53.0	-40.7	66.8	0.00	0.00	0.00
4,000.0	2.94	322.50	3,998.2	57.1	-43.8	71.9	0.00	0.00	0.00
4,100.0	2.94	322.50	4,098.1	61.1	-46.9	77.1	0.00	0.00	0.00
4,200.0	2.94	322.50	4,197.9	65.2	-50.0	82.2	0.00	0.00	0.00
4,300.0	2.94	322.50	4,297.8	69.3	-53.2	87.3	0.00	0.00	0.00
4,400.0	2.94	322.50	4,397.7	73.3	-56.3	92.4	0.00	0.00	0.00
4,500.0	2.94	322.50	4,497.5	77.4	-59.4	97.6	0.00	0.00	0.00
4,600.0	2.94	322.50	4,597.4	81.5	-62.5	102.7	0.00	0.00	0.00
4,700.0	2.94	322.50	4,697.3	85.6	-65.7	107.8	0.00	0.00	0.00
4,755.8	2.94	322.50	4,753.0	87.8	-67.4	110.7	0.00	0.00	0.00
TGR3	2.04	022.00	٦,٢٥٥.٥	07.0	-07. <del>4</del>	110.7	0.00	0.00	0.00
4,800.0	2.94	322.50	4,797.1	89.6	-68.8	113.0	0.00	0.00	0.00
4,000.0	2.94	322.30	4,191.1	09.0	-00.0	113.0	0.00	0.00	0.00

#### **Bill Barrett Corp**

**Planning Report** 

Database: Compass

Company: BILL BARRETT CORP

Project: DUCHESNE COUNTY, UT (NAD 27)

 Site:
 5-12D-45 BTR

 Well:
 5-12D-45 BTR

 Wellbore:
 5-12D-45 BTR

 Design:
 Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well 5-12D-45 BTR

KB @ 5942.0ft (Original Well Elev) KB @ 5942.0ft (Original Well Elev)

True

Minimum Curvature

gn:	Design #1								
ned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,900.0 5,000.0 5,100.0	2.94 2.94 2.94	322.50 322.50 322.50	4,897.0 4,996.9 5,096.7	93.7 97.8 101.8	-71.9 -75.0 -78.1	118.1 123.2 128.4	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
5,200.0 5,300.0 5,400.0 5,500.0 5,596.9	2.94 2.94 2.94 2.94 2.94	322.50 322.50 322.50 322.50 322.50	5,196.6 5,296.5 5,396.4 5,496.2 5,593.0	105.9 110.0 114.0 118.1 122.1	-81.3 -84.4 -87.5 -90.6 -93.7	133.5 138.6 143.7 148.9 153.9	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
Douglas Cr	eek								
5,600.0 5,700.0 5,800.0 5,856.3 5,900.0	2.94 2.94 2.94 2.94 2.28	322.50 322.50 322.50 322.50 322.50	5,596.1 5,696.0 5,795.8 5,852.0 5,895.7	122.2 126.3 130.3 132.6 134.2	-93.8 -96.9 -100.0 -101.8 -103.0	154.0 159.1 164.3 167.2 169.1	0.00 0.00 0.00 0.00 1.50	0.00 0.00 0.00 0.00 -1.50	0.00 0.00 0.00 0.00 0.00
6,000.0	0.79	322.50	5,995.7	136.3	-104.6	171.8	1.50	-1.50	0.00
6,052.3 <b>3PT MKR</b> 6,100.0 6,200.0 6,300.0	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	6,048.0 6,095.7 6,195.7 6,295.7	136.6 136.6 136.6 136.6	-104.8 -104.8 -104.8 -104.8	172.2 172.2 172.2 172.2	0.00 0.00 0.00 0.00	-1.50 0.00 0.00 0.00	0.00 0.00 0.00 0.00
6,400.0 6,452.3 Black Shale	0.00 0.00	0.00 0.00	6,395.7 6,448.0	136.6 136.6	-104.8 -104.8	172.2 172.2	0.00 0.00	0.00 0.00	0.00 0.00
6,500.0 6,600.0 6,677.3	0.00 0.00 0.00	0.00 0.00 0.00	6,495.7 6,595.7 6,673.0	136.6 136.6 136.6	-104.8 -104.8 -104.8	172.2 172.2 172.2	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
Castle Peak									
6,700.0 6,800.0 6,900.0 7,000.0 7,007.3	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	6,695.7 6,795.7 6,895.7 6,995.7 7,003.0	136.6 136.6 136.6 136.6 136.6	-104.8 -104.8 -104.8 -104.8 -104.8	172.2 172.2 172.2 172.2 172.2	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
Uteland But	te								
7,087.3 CR 1	0.00	0.00	7,083.0	136.6	-104.8	172.2	0.00	0.00	0.00
7,100.0 7,200.0 7,262.3	0.00 0.00 0.00	0.00 0.00 0.00	7,095.7 7,195.7 7,258.0	136.6 136.6 136.6	-104.8 -104.8 -104.8	172.2 172.2 172.2	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
<b>Wasatch</b> 7,300.0	0.00	0.00	7,295.7	136.6	-104.8	172.2	0.00	0.00	0.00
7,400.0 7,422.3	0.00 0.00	0.00 0.00	7,395.7 7,418.0	136.6 136.6	-104.8 -104.8	172.2 172.2	0.00 0.00	0.00 0.00	0.00 0.00
7,500.0 7,600.0 7,677.3	0.00 0.00 0.00	0.00 0.00 0.00	7,495.7 7,595.7 7,673.0	136.6 136.6 136.6	-104.8 -104.8 -104.8	172.2 172.2 172.2	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
CR 3									
7,700.0 7,800.0 7,900.0 8,000.0 8,007.3	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	7,695.7 7,795.7 7,895.7 7,995.7 8,003.0	136.6 136.6 136.6 136.6 136.6	-104.8 -104.8 -104.8 -104.8 -104.8	172.2 172.2 172.2 172.2 172.2	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
CR 4	3.50	0.00	5,000.0	.00.0	101.0	,,,,,,	0.00	0.00	0.00

#### **Bill Barrett Corp**

Planning Report

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Well 5-12D-45 BTR

KB @ 5942.0ft (Original Well Elev) KB @ 5942.0ft (Original Well Elev)

True

Minimum Curvature

lanned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,100.0 8,200.0 8,247.3	0.00 0.00 0.00	0.00 0.00 0.00	8,095.7 8,195.7 8,243.0	136.6 136.6 136.6	-104.8 -104.8 -104.8	172.2 172.2 172.2	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
CR 4A 8,300.0 8,397.3	0.00 0.00	0.00 0.00	8,295.7 8,393.0	136.6 136.6	-104.8 -104.8	172.2 172.2	0.00 0.00	0.00 0.00	0.00 0.00
CR 5									
8,400.0 8,500.0 8,537.3	0.00 0.00 0.00	0.00 0.00 0.00	8,395.7 8,495.7 8,533.0	136.6 136.6 136.6	-104.8 -104.8 -104.8	172.2 172.2 172.2	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
CR 6									
8,600.0 8,700.0	0.00 0.00	0.00 0.00	8,595.7 8,695.7	136.6 136.6	-104.8 -104.8	172.2 172.2	0.00 0.00	0.00 0.00	0.00 0.00
8,800.0 8,900.0 9,000.0 9,067.3	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	8,795.7 8,895.7 8,995.7 9,063.0	136.6 136.6 136.6 136.6	-104.8 -104.8 -104.8 -104.8	172.2 172.2 172.2 172.2	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
CR 7									
9,100.0	0.00	0.00	9,095.7	136.6	-104.8	172.2	0.00	0.00	0.00
9,200.0 9,300.0 9,367.3	0.00 0.00 0.00	0.00 0.00 0.00	9,195.7 9,295.7 9,363.0	136.6 136.6 136.6	-104.8 -104.8 -104.8	172.2 172.2 172.2	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00

rmations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	2,713.1	2,713.0	Green River		0.00	
	4,755.8	4,753.0	TGR3		0.00	
	5,596.9	5,593.0	Douglas Creek		0.00	
	6,052.3	6,048.0	3PT MKR		0.00	
	6,452.3	6,448.0	Black Shale Facies		0.00	
	6,677.3	6,673.0	Castle Peak		0.00	
	7,007.3	7,003.0	Uteland Butte		0.00	
	7,087.3	7,083.0	CR 1		0.00	
	7,262.3	7,258.0	Wasatch		0.00	
	7,422.3	7,418.0	CR 2		0.00	
	7,677.3	7,673.0	CR 3		0.00	
	8,007.3	8,003.0	CR 4		0.00	
	8,247.3	8,243.0	CR 4A		0.00	
	8,397.3	8,393.0	CR 5		0.00	
	8,537.3	8,533.0	CR 6		0.00	
	9,067.3	9,063.0	CR 7		0.00	

#### SURFACE USE PLAN

# BILL BARRETT CORPORATION 5-12D-45 BTR Pad

SWNW, 2121' FNL & 917' FWL, Sec. 12, T4S-R5W (surface hole) SWNW, 1980' FNL & 810' FWL, Sec. 12, T4S-R5W (bottom hole)

**Duchesne County, Utah** 

The onsite inspection for this pad occurred on February 1, 2012. This is a new pad with one proposed well. Plat changes and site specific stipulations requested at the onsite are reflected within this APD and summarized below.

- a) Relocated a portion of the proposed topsoil pile to corner A & 4 area to maximize interim reclamation and minimize topsoil loss;
- b) Shorten trailer side of the pad area 10 feet to minimize fill slopes;

The excavation contractor would be provided with an approved copy of the surface use plan of operations before initiating construction.

#### 1. <u>Existing Roads:</u>

- a. The proposed well site is located approximately 7.0 miles south of Duchesne, Utah. Maps and directions reflecting the route to the proposed well site are included (see Topographic maps A and B).
- b. The existing State maintained Highway 191 would be utilized from Duchesne for 2.3 miles to the existing Duchesne County maintained Sowers Canyon Road. The Sowers Canyon Road would be utilized for 1.8 miles to the planned new access road.
- c. Project roads would require routine year-round maintenance to provide year-round access. Maintenance would include inspections, reduction of ruts and holes, maintenance to keep water off the road, replacement of surfacing materials, and clearing of sediment blocking ditches and culverts. Should snow removal become necessary, roads would be cleared with a motor grader and snow would be stored along the down gradient side to prohibit runoff onto the road. Aggregate would be used as necessary to maintain a solid running surface and minimize dust generation.
- d. Vehicle operators would obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions. Travel would be limited to the existing access roads and proposed access road.
- e. The use of roads under Utah State and Duchesne County maintenance are necessary to access the project area with no improvements proposed. No encroachment or pipeline crossing permits are required.

Bill Barrett Corporation Surface Use Plan 5-12D-45 BTR Pad Duchesne County, UT

f. All existing roads would be maintained and kept in good repair during all phases of operation.

#### 2. Planned Access Road:

- a. Approximately 2,060 feet of new access road is planned from the proposed 8-12D-45 BTR access road. The proposed 8-12D-45 BTR access road continues an additional 12,671 feet to the existing Sowers Canyon access road (see Topographic Map B). The proposed access road crosses entirely Ute Tribe surface.
- b. The planned access road would be constructed to a 30-foot ROW width with an 18-foot travel surface. See section 12.d. below for disturbance estimates.
- c. New road construction and improvements of existing roads would typically require the use of motor graders, crawler tractors, 10-yard end dump trucks, and water trucks. The standard methodology for building new roads involves the use of a crawler tractor or track hoe to windrow the vegetation to one side of the road corridor, remove topsoil to the opposing side of the corridor, and rough-in the roadway. This is followed by a grader or bulldozer to establish barrow ditches and crown the road surface. Where culverts are required, a track hoe or backhoe would trench the road and install the culverts. Some hand labor would be required when installing and armoring culverts. Road base or gravel in some instances would be necessary and would be hauled in and a grader used to smooth the running surface.
- d. The proposed road would be constructed to facilitate drainage, control erosion and minimize visual impacts by following natural contours where practical. No unnecessary side-casting of material would occur on steep slopes.
- e. A maximum grade of 10% would be maintained throughout the project with minimum cuts and fills, as necessary, to access the well.
- f. Excess rock from construction of the pad may be used for surfacing of the access road if necessary. Any additional aggregate necessary would be obtained from private or State of Utah lands in conformance with applicable regulations. Aggregate would be of sufficient size, type, and amount to allow all weather access and alleviate dust.
- g. Where topsoil removal is necessary, it would be windrowed (i.e. stockpiled/accumulated along the edge of the ROW and in a low row/pile parallel with the ROW) and re-spread over the disturbed area after construction and backfilling are completed. Vegetation removed from the disturbed area would also be re-spread to provide protection, nutrient recycling, and a seed source for reclamation.
- h. Turnouts are not proposed.

Bill Barrett Corporation Surface Use Plan 5-12D-45 BTR Pad Duchesne County, UT

- i. No culverts and no low-water crossings are anticipated. Adequate drainage structures, where necessary, would be incorporated into the remainder of the road to prevent soil erosion and accommodate all-weather traffic.
- j. No gates or cattle guards are anticipated at this time.
- k. Surface disturbance and vehicular travel would be limited to the approved location access road. Adequate signs would be posted, as necessary, to warn the public of project related traffic.
- All access roads and surface disturbing activities would conform to the
  appropriate standard, **no higher than necessary**, to accommodate their intended
  function adequately as outlined in the Bureau of Land Management and Forest
  Service publication: <u>Surface Operating Standards for Oil and Gas Exploration</u>
  and Development, Fourth Edition Revised 2007.
- m. The operator would be responsible for all maintenance needs of the new access road.

#### 3. Location of Existing Wells (see One-Mile Radius Map):

a. Following is a list of wells with surface hole locations within a one-mile radius of the proposed pad:

i.	water wells	none
ii.	injection wells	none
iii.	disposal wells	none
iv.	drilling wells	none
v.	temp shut-in wells	none
vi.	producing wells	none
vii.	abandoned wells	one

#### 4. Location of Production Facilities

- a. Surface facilities would consist of a wellhead, separator, gas meter, combustor, (1) 500 gal methanol tank, (1) 500 glycol tank, (3) 500 bbl oil tanks, (1) 500 bbl water tank, (1) 500 bbl test tank, (1) 1000 gal propane tank, a pumping unit or Roto-flex unit or ESP or gas lift unit, electrical or with a natural gas or diesel fired motor, solar panels, solar chemical and methanol pumps and one trace pump. See attached proposed facility diagram.
- b. Most wells would be fitted with a pump jack or Roto-flex unit or ESP or gas lift to assist liquid production. The prime mover for pump jacks or Roto-flex units would be small (100 horsepower or less), electric motor or natural gas or diesel fired internal combustion engines. If a gas lift is installed, it would be set on a 10 ft x 25 ft pad and the prime mover would be a natural gas-fired internal combustion engine rated at 200 horsepower or less or an electric compressor of similar horsepower powered by electricity.

Bill Barrett Corporation Surface Use Plan 5-12D-45 BTR Pad Duchesne County, UT

- c. The tank battery would be surrounded by a secondary containment berm of sufficient capacity to contain 1.1 times the entire capacity of the largest single tank and sufficient freeboard to contain precipitation. All loading lines and valves would be placed inside the berm surrounding the tank battery or would utilize catchment basins to contain spills. All liquid hydrocarbon production and measurement shall conform to the provisions of 43 CFR 3162.7-2 and Onshore Oil and Gas Order No. 4 for the measurement of oil.
- d. Gas meter run(s) would be constructed and located on lease within 500 feet of the wellheads. Meter runs would be housed and/or fenced. As practicably feasible, meters would be equipped with remote telemetry monitoring systems. All gas production and measurement shall comply with the provisions of 43 CFR 3162.7-3, Onshore Oil and Gas Order No. 5, and American Gas Association (AGA) Report No. 3.
- e. A combustor may be installed at this location for control of associated condensate tank emissions. A combustor ranges from 24 inches to 48 inches wide and is approximately 27 ft tall. Combustor placement would be on existing disturbance.
- f. Approximately 2,101 feet of pipeline corridor containing up to three lines (one gas pipeline up to 8 inch in diameter, one water line up to 4 inch in diameter and one residue line up to 4 inch in diameter) is proposed traversing southeast to the proposed 8-12D-45 BTR pipeline corridor. The proposed 8-12D-45 BTR pipeline corridor continues an additional 21,978 feet to an existing BBC maintained pipeline corridor (see Topographic Map C). Pipelines would be constructed of steel, polyethylene or fiberglass and would connect to the proposed pipeline servicing nearby BBC wells. The pipeline crosses entirely Ute Tribe surface.
- g. The new segment of gas pipeline would be surface laid within a 30 foot wide pipeline corridor adjacent to the proposed access road. See 12.d below for disturbance estimates.
- h. Construction of the ROW would temporarily utilize the 30 foot disturbed width for the road for a total disturbed width of 60 foot for the road and pipeline corridors. The use of the proposed well site and access roads would facilitate the staging of the pipeline construction.
- Pipeline construction methods and practices would be planned and conducted by BBC with the objective of enhancing reclamation and fostering the reestablishment of the native plant community.
- j. All permanent above-ground structures would be painted a flat, non-reflective color, such as Beetle Green, to match the standard environmental colors. All facilities would be painted the designated color at the time of installation.

Bill Barrett Corporation Surface Use Plan 5-12D-45 BTR Pad Duchesne County, UT

Facilities required to comply with the Occupational Safety and Health Act (OSHA) may be excluded.

- k. Site security guidelines identified in 43 CFR 3162.7-5 and Onshore Oil and Gas Order No. 3 would be adhered to. Any modifications to proposed facilities would be reflected in the site security diagram submitted.
- 1. The site would require periodic maintenance to ensure that drainages are kept open and free of debris, and that surfaces are properly treated to reduce erosion, fugitive dust, and impacts to adjacent areas.
- 5. <u>Location and Type of Water Supply:</u>
  - a. Water for the drilling and completion would be trucked from any of the following locations:

Water Right No. and Application or Change No.	Applicant	Allocation	Date	Point of Diversion	Source
43-180	Duchesne City Water Service District	5 cfs	8/13/2004	Knight Diversion Dam	Duchesne River
43-1202, Change a13837	Myton City	5.49 cfr and 3967 acre feet	3/21/1986	Knight Diversion Dam	Duchesne River
43-10444, Appln A57477	Duchesne County Upper Country Water	2 cfs	1994	Ditch at Source	Cow Canyon Spring
43-10446, Appln F57432	Duchesne County Upper Country Water	1.58 cfs	1994	Ditch at Source	Cow Canyon Spring
43-1273, Appln A17462	J.J.N.P. Company	7 cfs	1946	Strawberry River	Strawberry River
43-1273, Appln t36590	J.J.N.P. Company	4 cfs	6/03/2010	Strawberry River	Strawberry River
43-2505, Appln t37379	McKinnon Ranch Properties, LC	1.3 cfs	4/28/2011	Pumped from Sec, 17, T4SR6W	Water Canyon Lake
43-12415, Change A17215a	Peatross Ranch, LLC	1.89 cfs	09/2011	Dugout Pond	Strawberry River

- b. No new water well is proposed with this application.
- c. Should additional water sources be pursued they would be properly permitted through the State of Utah Division of Water Rights.

Bill Barrett Corporation Surface Use Plan 5-12D-45 BTR Pad Duchesne County, UT

d. Water use would vary in accordance with the formations to be drilled but would be up to approximately 5.41 acre feet for drilling and completion operations.

#### 6. <u>Source of Construction Material:</u>

- a. The use of materials would conform to 43 CFR 3610.2-3.
- b. No construction materials would be removed from the lease or EDA area.
- c. If any additional gravel is required, it would be obtained from a local supplier having a permitted source of materials within the general area.

#### 7. <u>Methods of Handling Waste Disposal:</u>

- a. All wastes associated with this application would be contained and disposed of utilizing approved facilities.
- b. The reserve pit would be constructed so as not to leak, break or allow any discharge.
- c. The reserve would be lined with 12 mil (minimum) thickness polyethylene nylon reinforced liner material. The liner(s) would overlay straw, dirt and/or bentonite if rock is encountered during excavation. The liner would overlap the pit walls and be covered with dirt and/or rocks to hold them in place. No trash, scrap pipe, or other materials that could puncture the liner would be discarded in the pit. A minimum of two feet of free board would be maintained between the maximum fluid level and the top of the reserve pit at all times.
- d. To deter livestock from entering the pit, the three sides exterior to the location would be fenced before drilling starts. Following the conclusion of drilling and completion activities, the fourth side would also be fenced.
- e. Drill cuttings would be contained in the pit and buried on-site for a period not to exceed six months, weather permitting
- f. Produced fluids from the well other than water would be decanted into steel test tank(s) until such time as construction of production facilities is completed. Any oil that may be accumulated would be transferred to a permanent production tank. Produced water may be used in further drilling and completion activities, evaporated in the pit, or would be hauled to one of the following state-approved disposal facilities:

#### **Disposal Facilities**

- 1. RNI Industries, Inc. Pleasant Valley Disposal Pits, Sec. 25, 26, 35 & 36, T4S-R3W
- 2. Pro Water LLC Blue Bench 13-1 Disposal Well (43-013-30971) NENE, Sec. 13, T3S-R5W

Bill Barrett Corporation Surface Use Plan 5-12D-45 BTR Pad Duchesne County, UT

#### **Disposal Facilities**

- 3. RN Industries, Inc. Bluebell Disposal Ponds, Sec. 2, 4 & 9, T2S-R2W
- 4. Water Disposal, Inc. Harmston 1-32-A1 Disposal Well (43-013-30224), UTR #00707, Sec. 32, T1S-R1W
- 5. Unified Water Pits Sec. 31, T2S-R4W
- 6. Iowa Tank Line Pits 8500 BLM Fence Road, Pleasant Valley
- 7. Western Water Solutions Sand Pass Ranch, Sections 9 and 10, T4S-R1W, permit #WD-01-2011
- g. Any salts and/or chemicals, which are an integral part of the drilling system, would be disposed of in the same manner as the drilling fluid.
- h. Any spills of oil, condensate, produced or frac water, drilling fluids, or other potentially deleterious substances would be recovered and either returned to its origin or disposed of at an approved disposal site, most likely in Duchesne, Utah.
- i. Chemicals on the EPA's Consolidated List of Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) may be used or stored in quantities over reportable quantities. In the course of drilling, BBC could potentially store and use diesel fuel, sand (silica), hydrochloric acid, and CO<sub>2</sub> gas, all described as hazardous substances in 40 CFR Part 302, Section 302.4, in quantities exceeding 10,000 pounds. In addition, natural gas condensate and crude oil and methanol may be stored or used in reportable quantities. Small quantities of retail products (paint/spray paints, solvents {e.g., WD-40}, and lubrication oil) containing non-reportable volumes of hazardous substances may be stored and used on site at any time. No extremely hazardous substances, as defined in 40 CFR 355, would be used, produced, stored, transported or disposed of in association with the drilling, testing or completion of the wells.
- j. Portable toilets and trash containers would be located onsite during drilling and completion operations. A commercial supplier would install and maintain portable toilets and equipment and would be responsible for removing sanitary waste. Sanitary waste facilities (i.e. toilet holding tanks) would be regularly pumped and their contents disposed of at approved sewage disposal facilities in Duchesne, and/or Uintah Counties, in accordance with applicable rules and regulations regarding sewage treatment and disposal. Accumulated trash and nonflammable waste materials would be hauled to an approved landfill once a week or as often as necessary. All debris and waste materials not contained in the trash containers would be cleaned up, removed from the construction ROW, well pad, or worker housing location, and disposed of at an approved landfill. Trash would be cleaned up everyday.
- k. Sanitary waste equipment and trash bins would be removed from the Project Area upon completion of access road or pipeline construction; following drilling and completion operations at an individual well pad; when worker housing is no longer needed; or as required.

Bill Barrett Corporation Surface Use Plan 5-12D-45 BTR Pad Duchesne County, UT

- 1. A flare pit may be constructed a minimum of 110' from the wellhead(s) and may be used during completion work. In the event a flare pit proves to be unworkable, a temporary flare stack or open top tank would be installed. BBC would flow back as much fluid and gas as possible into pressurized vessels, separating the fluids from the gas. In some instances, due to the completion fluids utilized within the Project Area, it is not feasible to direct the flow stream from the wellbore through pressurized vessels. In such instances BBC proposes to direct the flow to the open top tanks until flow through the pressurized vessels is feasible. At which point the fluid would either be returned to the reserve pit or placed into a tank(s). The gas would be directed to the flare pit, flare stack (each with a constant source of ignition), or may be directed into the sales pipeline.
- m. Hydrocarbons would be removed from the reserve pit would as soon as practical. In the event immediate removal is not practical, the reserve pit would be flagged overhead or covered with wire or plastic mesh to protect migrating birds.

#### 8. <u>Ancillary Facilities:</u>

- a. Garbage containers and portable toilets would be located on the well pad.
- b. On well pads where active drilling and completion is occurring, temporary housing would be provided on location for the well pad supervisor, geologist, tool pusher, and others that are required to be on location at all times. The well pad could include up to five single wide mobile homes or fifth wheel campers/trailers.
- c. A surface powerline corridor 2,060 feet in length is proposed for installation by third-party installer within a 150 foot wide powerline corridor adjacent to the proposed access road. See 12.d below for disturbance estimates. The powerline crosses entirely Ute Tribe surface.

#### 9. Well Site Layout:

- a. The well would be properly identified in accordance with 43 CFR 3162.6.
- b. The pad layout, cross section diagrams and rig layout are enclosed (see Figures 1 and 2).
- c. The pad and road designs are consistent with industry specifications.
- d. The pad has been staked at its maximum size of 400 feet x 290 feet with an inboard reserve pit size of 235 feet x 70 feet x 8 feet deep. See section 12.d below for disturbance estimates.
- e. Within the approved well pad location, a crawler tractor would strip whatever topsoil is present and stockpile it along the edge of the well pad for use during reclamation. Vegetation would be distributed along the sides of the well pad.

Bill Barrett Corporation Surface Use Plan 5-12D-45 BTR Pad Duchesne County, UT

- f. Fill from pit excavation would be stockpiled along the edge of the pit and the adjacent edge of the well pad.
- g. Use of erosion control measures, including proper grading to minimize slopes, diversion terraces and ditches, mulching, terracing, riprap, fiber matting, temporary sediment traps, and broad-based drainage dips or low water crossings would be employed by BBC as necessary and appropriate to minimize erosion and surface runoff during well pad construction and operation. Cut and fill slopes would be constructed such that stability would be maintained for the life of the activity.
- h. All cut and fill slopes would be such that stability can be maintained for the life of the activity.
- i. Diversion ditches would be constructed, if necessary, around the well site to prevent surface waters from entering the well site area.
- j. Water application may be implemented if necessary to minimize the amount of fugitive dust.
- k. All surface disturbing activities would be supervised by a qualified, responsible company representative who is aware of the terms and conditions of the APD and specifications in the approved plans.

#### 10. Plan for Restoration of the Surface:

- a. A site specific reclamation plan would be submitted, if requested, within 90 days of location construction to the surface managing agency.
- b. Site reclamation would be accomplished for portions of the well pad not required for the continued operation of the well on this pad within six months of completion, weather permitting.
- c. The operator would control noxious weeds along access road use authorizations and well site by spraying or mechanical removal, according to the Utah Noxious Weed Act and as set forth in the approved surface damage agreements.
- d. Rat and mouse holes would be filled and compacted from bottom to top immediately upon release of the drilling rig from location. Upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1. The reserve pit would be allowed to dry prior to the commencement of backfilling work. No attempts would be made to backfill the reserve pit until it is free of standing water. Once dry, the liner would be torn and perforated before backfilling.
- e. The reserve pit and that portion of the location not needed for production facilities/operations would be recontoured to the approximate natural contours.

Bill Barrett Corporation Surface Use Plan 5-12D-45 BTR Pad Duchesne County, UT

Areas not used for production purposes would be backfilled and blended into the surrounding terrain, reseeded and erosion control measures installed. Mulching, erosion control measures and fertilization may be required to achieve acceptable stabilization. Back slopes and fore slopes would be reduced as practical and scarified with the contour. The reserved topsoil would be evenly distributed over the slopes and scarified along the contour. Slopes would be seeded with the Ute Tribe specified seed mix.

f. Topsoil salvaged from the drill site and stored for more than one year would be placed at the location indicated on the well site layout drawing and graded to a depth optimum to maintain topsoil viability, seeded with the Ute Tribe prescribed seed mixture and covered with mulch for protection from wind and water erosion and to discourage the invasion of weeds.

#### 11. Surface and Mineral Ownership:

- a. Surface ownership Ute Indian Tribe 988 South 7500 East; Ft. Duchesne, Utah 84026; 435-725-4982.
- b. Mineral ownership Ute Indian Tribe 988 South 7500 East; Ft. Duchesne, Utah 84026; 435-725-4982.

#### 12. Other Information:

- a. Montgomery Archeological Consultants has conducted a Class III archeological survey. A copy of the report has been submitted under separate cover to the appropriate agencies by Montgomery as report 11-177 dated June 27, 2011.
- b. BBC would require that their personnel, contractors, and subcontractors to comply with Federal regulations intended to protect archeological and cultural resources.
- c. Project personnel and contractors would be educated on and subject to the following requirements:
  - No dogs or firearms within the Project Area.
  - No littering within the Project Area.
  - Smoking within the Project Area would only be allowed in off-operator active locations or in specifically designated smoking areas. All cigarette butts would be placed in appropriate containers and not thrown on the ground or out windows of vehicles; personnel and contractors would abide by all fire restriction orders.
  - Campfires or uncontained fires of any kind would be prohibited.
  - Portable generators used in the Project Area would have spark arrestors.

Bill Barrett Corporation Surface Use Plan 5-12D-45 BTR Pad Duchesne County, UT

#### d. Disturbance estimates:

Approximate Acreage Disturbances							
Well Pad		3.202	acres				
Access	2,060 feet	1.400	acres				
Pipeline	2,101 feet	1.428	acres				
Powerline	2,060 feet	7.002	acres				

Total

13.032 acres

Bill Barrett Corporation Surface Use Plan 5-12D-45 BTR Pad Duchesne County, UT

#### **OPERATOR CERTIFICATION**

#### Certification:

I hereby certify that I, or someone under my direction supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein would be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application and that bond coverage is provided under Bill Barrett Corporations federal nationwide bond. These statements are subject to the provisions of 18 U.S.C. 1001 for the filings of false statements.

Executed this

Venessa Langmacher 2012

Name:

Position Title:

Senior Permit Analyst

Address:

1099 18<sup>th</sup> Street, Suite 2300, Denver, CO 80202

Telephone:

303-312-8172

E-mail:

vlangmacher@billbarrettcorp.com

Field Representative

Kary Eldredge / Bill Barrett Corporation

Address:

1820 W. Highway 40, Roosevelt, UT 84066

Telephone:

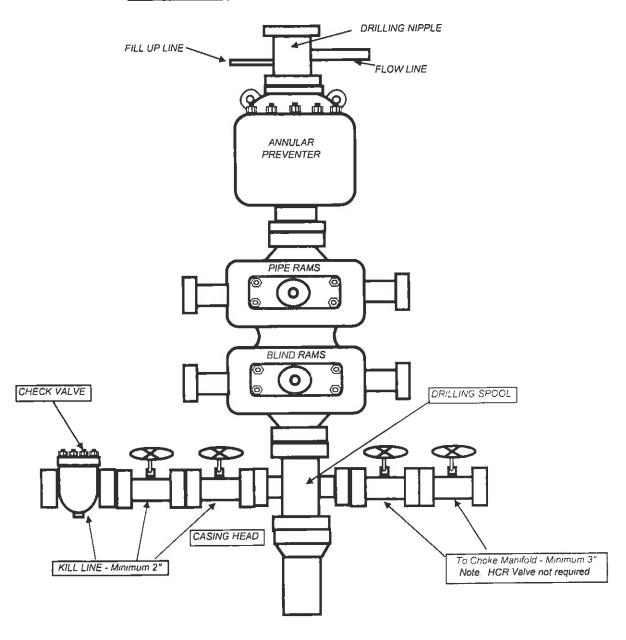
435-725-3515 (office); 435-724-6789 (mobile)

E-mail:

keldredge@billbarrettcorp.com

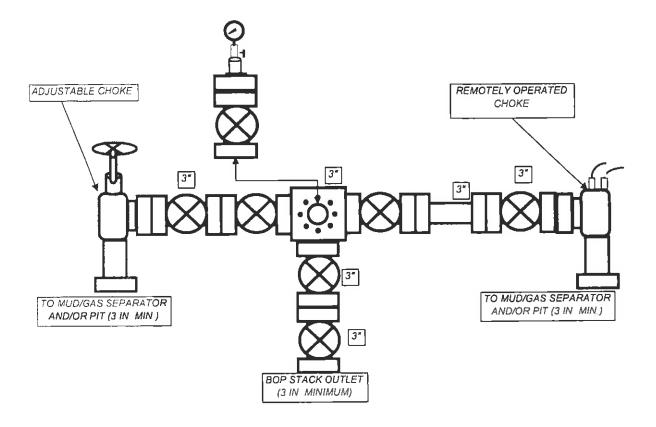
## **BILL BARRETT CORPORATION**

### TYPICAL 5,000 p.s.i. BLOWOUT PREVENTER



## **BILL BARRETT CORPORATION**

### TYPICAL 5,000 p.s.i. CHOKE MANIFOLD





May 17, 2012

Ms. Diana Mason – Petroleum Technician State of Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210 P. O. Box 145801 Salt Lake City, Utah 84114-5801

Re: Directional Drilling R649-3-11

Blacktail Ridge Area #5-12D-45 BTR Well

Surface: 2,121' FNL & 917' FWL, SWNW, 12-T4S-R5W, USM Bottom Hole: 1,980' FNL & 810' FWL, SESE, 12-T4S-R5W, USM

Duchesne County, Utah

Dear Ms. Mason,

Pursuant to the filing of Bill Barrett Corporation's ("BBC") Application for Permit to Drill the above referenced well, we hereby submit this letter in accordance with Oil & Gas Conservation Rules R649-2, R649-3, R649-10 and R649-11, pertaining to the Location and Siting of Wells.

- The proposed location is within our Blacktail Ridge Area.
- BBC is permitting this well as a directional well in order to minimize surface disturbance. By locating the well at the surface location and directionally drilling from this location, BBC will be able to utilize the existing road and pipelines in the area.
- The well will be drilled under an Exploration and Development Agreement between the Ute Indian Tribe and Ute Distribution Corporation. Ute Energy, LLC owns a right to participate in this well.
- BBC certifies that it is the working interest owner of all lands within 460 feet of the proposed well location, and together with Ute Energy, LLC, we own 100% of the working interest in these lands.

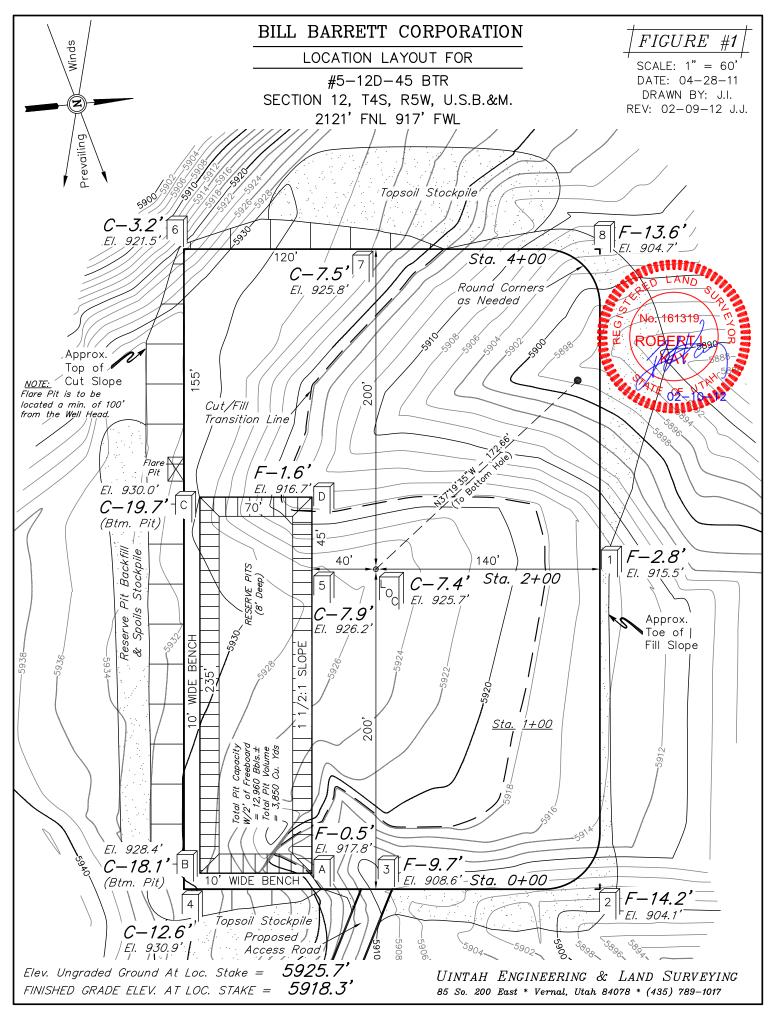
Based on the information provided, BBC requests that the permit be granted pursuant to R649-3-11. Should you have any questions or need further information, please contact me at 303-312-8544.

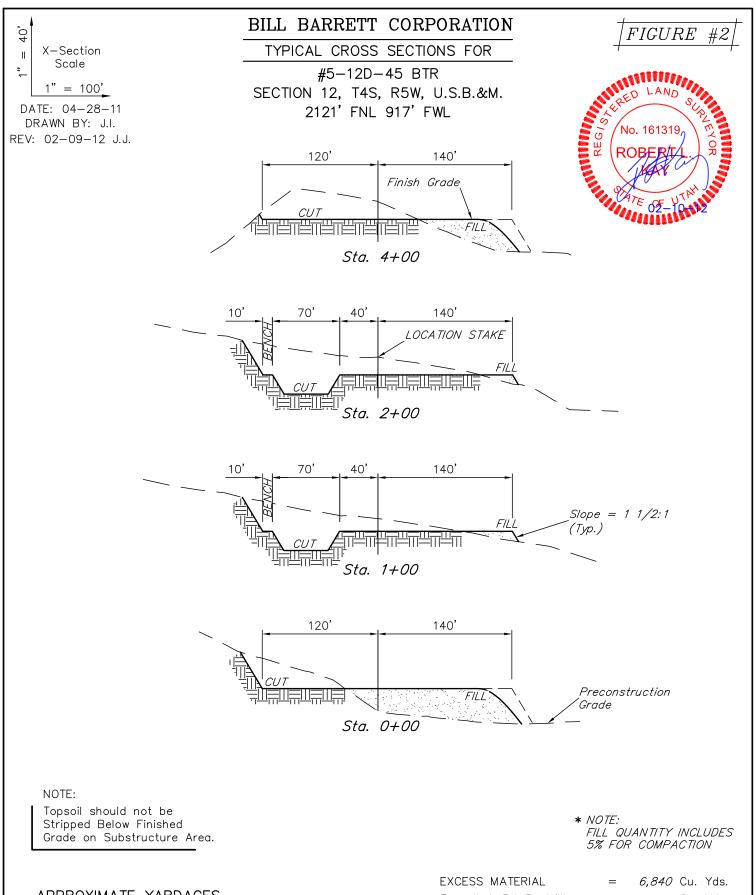
Sincerely,

Veneusa Romanaches David Watts for

Landman

1099 18<sup>TH</sup> STREET SUITE 2300 DENVER, CO 80202 P 303.293.9100 F 303.291.0420





### APPROXIMATE YARDAGES

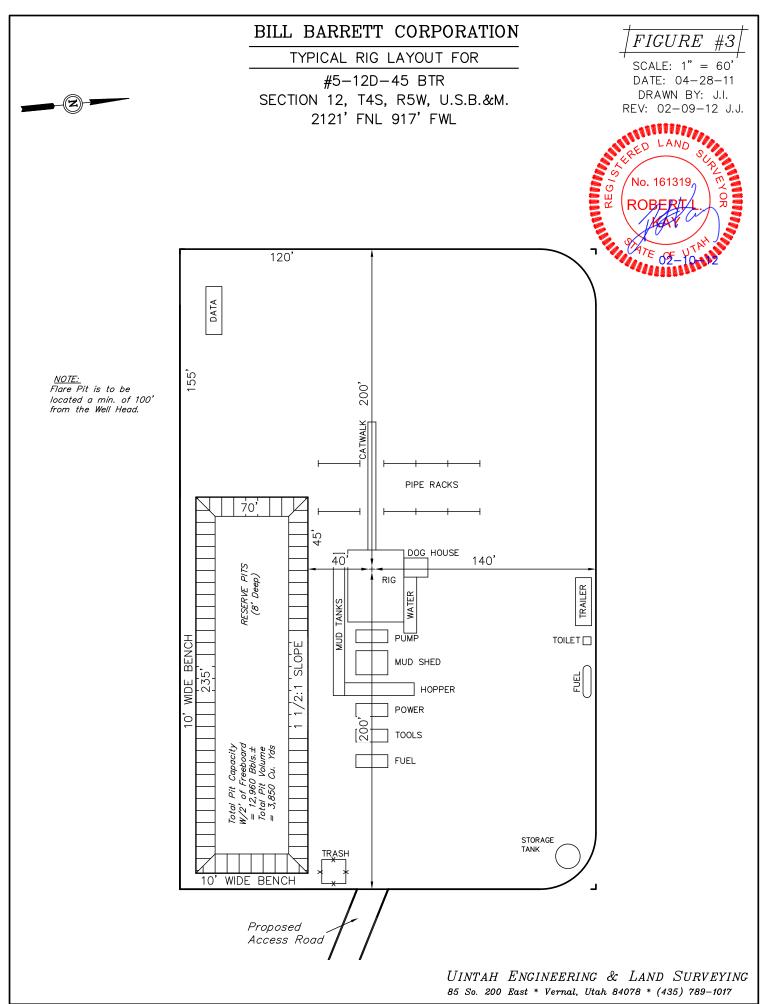
(12") Topsoil Stripping = 4,910 Cu. Yds. Remaining Location = 18,580 Cu. Yds.

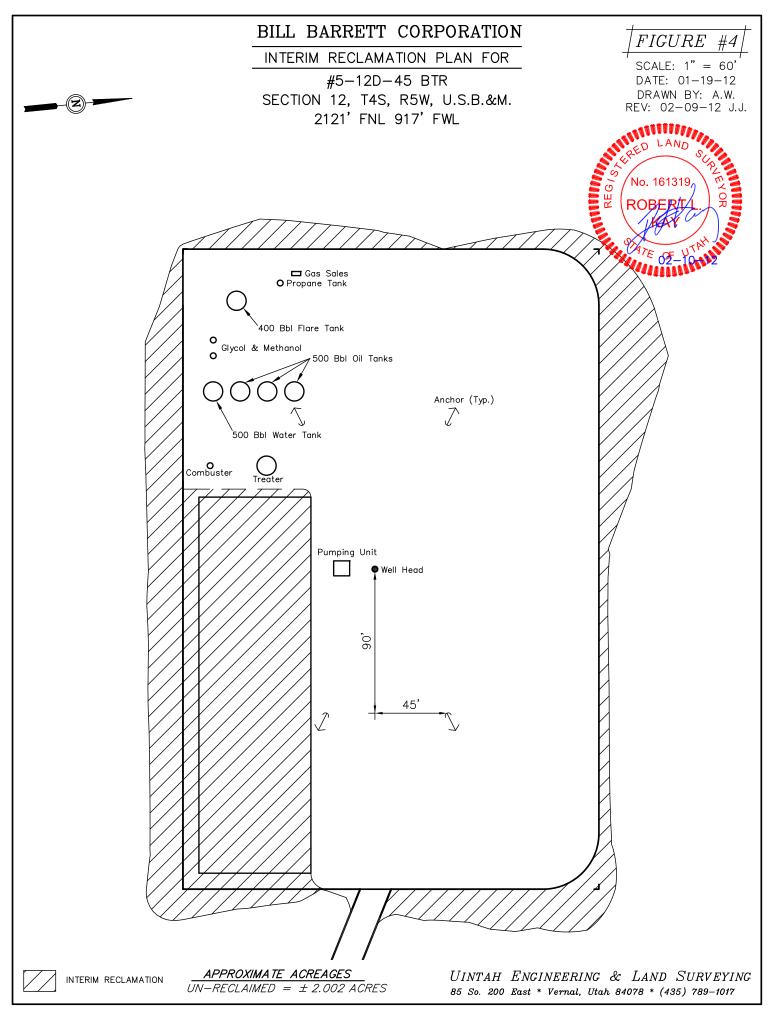
TOTAL CUT = 23,490 CU.YDS. FILL = 16,650 CU.YDS. EXCESS MATERIAL = 6,840 Cu. Yds. Topsoil & Pit Backfill = 6,840 Cu. Yds. (1/2 Pit Vol.)

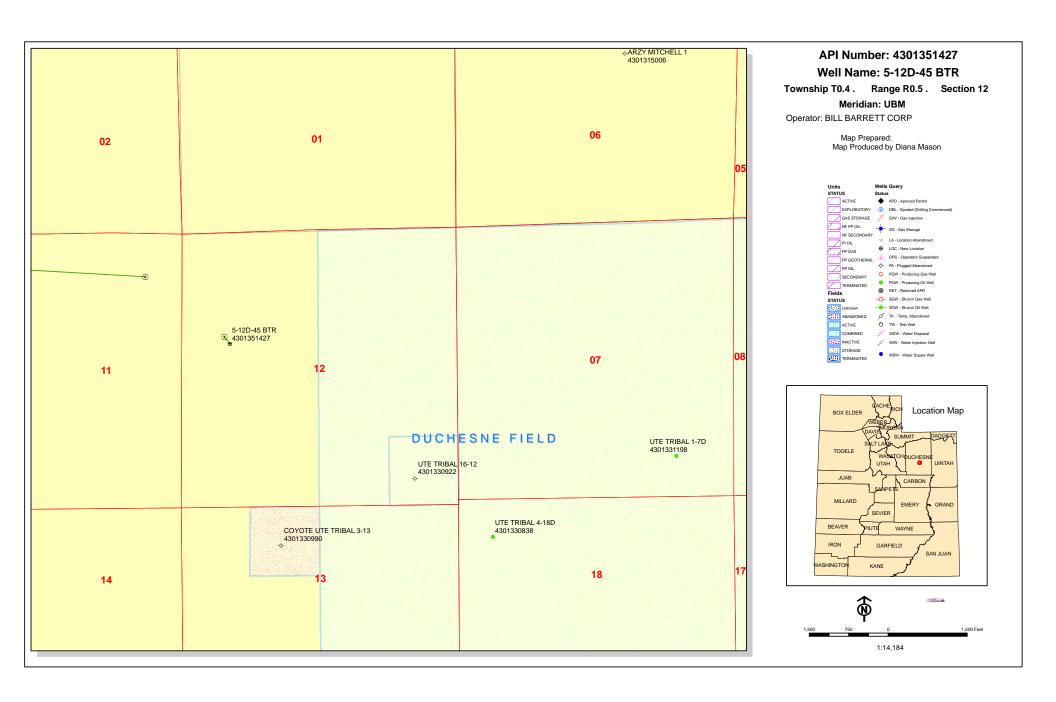
EXCESS UNBALANCE = 0 Cu. Yds.

(After Interim Rehabilitation)

UINTAH ENGINEERING & LAND SURVEYING 85 So. 200 East \* Vernal, Utah 84078 \* (435) 789-1017







API Well Number: 43013514270000

# WORKSHEET APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED:** 5/17/2012 **API NO. ASSIGNED:** 43013514270000

WELL NAME: 5-12D-45 BTR

**OPERATOR:** BILL BARRETT CORP (N2165) **PHONE NUMBER:** 303 312-8172

**CONTACT:** Venessa Langmacher

PROPOSED LOCATION: SWNW 12 040S 050W Permit Tech Review:

SURFACE: 2121 FNL 0917 FWL Engineering Review:

BOTTOM: 1980 FNL 0810 FWL Geology Review:

**COUNTY: DUCHESNE** 

LATITUDE: 40.14891 LONGITUDE: -110.40474
UTM SURF EASTINGS: 550701.00 NORTHINGS: 4444455.00

**FIELD NAME:** UNDESIGNATED **LEASE TYPE:** 2 - Indian

LEASE NUMBER: 20G0005608 PROPOSED PRODUCING FORMATION(S): GREEN RIVER-WASATCH

SURFACE OWNER: 2 - Indian COALBED METHANE: NO

RECEIVED AND/OR REVIEWED: LOCATION AND SITING:

**▶** PLAT R649-2-3.

**▶ Bond**: INDIAN - LPM8874725 **Unit**:

Potash R649-3-2. General

Oil Shale 190-5

Oil Shale 190-3 R649-3-3. Exception

Oil Shale 190-13 Prilling Unit

Water Permit: 43-180 Board Cause No: Cause 139-85

RDCC Review: Effective Date: 3/11/2010

Fee Surface Agreement Siting: 4 Prod LGRRV-WSTC Per Sectional Drilling Units

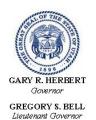
Intent to Commingle R649-3-11. Directional Drill

**Commingling Approved** 

Comments: Presite Completed

Stipulations: 4 - Federal Approval - dmason

15 - Directional - dmason



## State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

## Permit To Drill

\*\*\*\*\*\*

Well Name: 5-12D-45 BTR
API Well Number: 43013514270000
Lease Number: 20G0005608

Surface Owner: INDIAN Approval Date: 5/24/2012

### Issued to:

BILL BARRETT CORP, 1099 18th Street Ste 2300, Denver, CO 80202

### Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 139-85. The expected producing formation or pool is the GREEN RIVER-WASATCH Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

#### **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

#### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

### Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

### **Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil &

### Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
  - Requests to Change Plans (Form 9) due prior to implementation
  - Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
  - Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas **From:** Venessa Langmacher <vlangmacher@billbarrettcorp.com> **To:** "dianawhitney@utah.gov" <dianawhitney@utah.gov>

**Date:** 8/9/2012 4:02 PM

**Subject:** RE: Application For Permit to Drill Sent Back for Revisions

Can you please rescind the 5-12D-45 to allow for this well?

-----Original Message-----

From: dianawhitney@utah.gov [mailto:dianawhitney@utah.gov]

Sent: Thursday, August 09, 2012 10:30 AM

To: Venessa Langmacher

Subject: Application For Permit to Drill Sent Back for Revisions

APD Number: 6567

Well Name: 13H-12-45 BTR Operator: BILL BARRETT CORP

Wouldn't this make the 5th well per 139-85?



# State of Utah

### DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER Executive Director

Division of Oil, Gas and Mining JOHN R. BAZA

Division Director

August 9, 2012

Venessa Langmacher Bill Barrett Corporation 382 Road 3100 Aztec, NM 87410

Re:

<u>APD Rescinded – 5-12D-45, Sec. 12, T. 4S, R. 5W</u> Duchesne County, Utah API No. 43-013-51427

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on May 24, 2012. On August 9, 2012, you requested that the division rescind the state approved APD. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective August 9, 2012.

A new APD must be filed with this office for approval <u>prior</u> to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason

Environmental Scientist

cc: Well File

Bureau of Land Management, Vernal





# State of Utah

### **DEPARTMENT OF NATURAL RESOURCES**

MICHAEL R. STYLER Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

August 9, 2012

Venessa Langmacher Bill Barrett Corporation 1099 18<sup>th</sup> Street Ste. 2300 Denver, CO 80202

Corrected address

Re:

<u>APD Rescinded - 5-12D-45, Sec. 12, T. 4S, R. 5W</u> <u>Duchesne County, Utah API No. 43-013-51427</u>

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Sincerely,

Diana Mason

**Environmental Scientist** 

cc: Well File

Bureau of Land Management, Vernal



# RECEIVED

**UNITED STATES** DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT** 

MAY 2 1 2012

FORM APPROVED OMB No. 1004-0136 Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REENTE	A	A

5. Lease Serial No. 20G0005608

		BLM	o. It fildraff, Anottee of 111	se Name
1a. Type of Work: ☑ DRILL ☐ REENTER			7. If Unit or CA Agreemen	t, Name and No.
1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ O  2. Name of Operator Contact	ther Sin	ngle Zone Multiple Zone	8. Lease Name and Well N 5-12D-45 BTR	0.
	nacher@billbarrettcorp.com	MACHER	9. API Well No.	
3a. Address 1099 18TH STREET SUITE 2300	3b. Phone No. (inch	ude area code)	43013 51	927 oratory
DENVER, CO 80202	Ph: 303-312-817 Fx: 303-291-042	20	UNDESIGNÁTED	
4. Location of Well (Report location clearly and in accord		·	11. Sec., T., R., M., or Blk.	and Survey or Area
At surface SWNW 2121FNL 917FW	Sec 12 T4S R5W Mer UBM			
At proposed prod. zone SWNW 1980FNL 810FWI		110.405231 W Lon		
14. Distance in miles and direction from nearest town or post 7.0 MILES SOUTH OF DUCHESNE, UT			12. County or Parish DUCHESNE	13. State UT
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of Acres in I	Lease	17. Spacing Unit dedicated	to this well
810. (ROLLOW HOLE)	66101.00		640.00	
<ol> <li>Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.</li> </ol>	19. Proposed Depth		20. BLM/BIA Bond No. on	file
NONE	9367 MD 9363 TVD		LPM8874725	
21. Elevations (Show whether DF, KB, RT, GL, etc. 5926 GL	22. Approximate dat 07/01/2013	te work will start	23. Estimated duration 60 DAYS (D&REC	EIVED
		tachments	IAN 3	1 2013
The following, completed in accordance with the requirements of	of Onshore Oil and Gas		his form:	
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest Syst SUPO shall be filed with the appropriate Forest Service Of</li> </ol>	em Lands, the fice).	<ol> <li>Bond to cover the operation Item 20 above).</li> <li>Operator certification</li> <li>Such other site specific infrauthorized officer.</li> </ol>		
25. Signature (Electronic Submission)	Name (Printed/Typed VENESSA LAN	) NGMACHER Ph: 303-312	-8172	Date 05/17/2012
Title SENIOR PERMIT ANALYST				
Approved by (Signature)	Name (Printed/Typed)			Date
Title Assistant Field Manager		Jerry Kenczka	!	JAN 2 2 2013
Lands & Mineral Resources	Office	VERNAL FIELD OFF		
Application approval does not warrant or certify the applicant hoperations thereon.	lds legal or equitable tit	le to those rights in the subject lea	ase which would entitle the app	olicant to conduct
Conditions of approval, if any, are attached.			FAPPROVAL ATTACK	
itle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, 1 tates any false, fictitious or fraudulent statements or representat	nake it a crime for any prions as to any matter wi	person knowingly and willfully to thin its jurisdiction.	make to any department or ag	ency of the United
Additional Operator Remarks (see next page)				
Electronic Submissi	on #138386 verifie	ed by the BLM Well Inform	ation System	

For BILL BARRETT CORPORATION, sent to the Vernal Committed to AFMSS for processing by LESLIE ROBINSON on 05/22/2012 () NOTICE OF APPROVAL

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\*

12 PRH 19 56AZ

NOS 1/19/12.



### UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE**

**VERNAL, UT 84078** 

(435) 781-4400



## CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No:

**BILL BARRETT CORPORATION** 

5-12D-45 BTR

API No: 43-013-51427 Location:

SWNW, Sec. 12, T4S, R5W

Lease No: 2OG0005608

Agreement:

N/A

**OFFICE NUMBER:** 

(435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

### A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

### **NOTIFICATION REQUIREMENTS**

Construction Activity (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	-	The Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist shall be notified at least 48 hours in advance of any construction activity. The Ute Tribal office is open Monday through Thursday.
Construction Completion (Notify Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist)	-	Upon completion of the pertinent APD/ROW construction, notify the Ute Tribe Energy & Minerals Dept. for a Tribal Technician to verify the Affidavit of Completion. Notify the BLM Environmental Scientist prior to moving on the drilling rig.
Spud Notice (Notify BLM Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify BLM Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov.
BOP & Related Equipment Tests (Notify BLM Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify BLM Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

Page 2 of 6 Well: 5-12D 45 BTR 1/16/2013

### SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

### **Additional Stipulations:**

- All Production Equipment will be painted Beetle Green to help blend into the surrounding vegetation and meet VRM type objectives.
- The production equipment will be placed towards the front of the pad to maximize interim reclamation efforts on all well pads where applicable.
- See Exhibit One of the approved EA U&O-FY13-Q1-025 for any additional mitigation measures that must be followed for this proposed action.
- Also any site specific mitigation measures attached to the Applications for Permit to Drill, specifically those found at the beginning of the surface use plan of operations will be required and followed as indicated.

### **General Conditions of Approval:**

- A <u>30'</u> foot corridor right-of-way shall be approved. Upon completion of each pipeline in corridor, they shall be identified and filed with the Ute Tribe.
- The Ute Tribe Energy & Minerals Department is to be notified, in writing 48 hours prior to construction of pipelines.
- Construction Notice shall be given to the department on the Ute Tribe workdays, which are Monday through Thursday. The Company understands that they may be responsible for costs incurred by the Ute Tribe after hours.
- The Company shall inform contractors to maintain construction of pipelines within the approved ROW's.
- The Company shall assure the Ute Tribe that "ALL CONTRACTORS, INCLUDING SUB-CONTRACTORS, LEASING CONTRACTORS, AND ETC." have acquired a current and valid Ute Tribal Business License and have "Access Permits" prior to construction, and will have these permits in all vehicles at all times.
- You are hereby notified that working under the "umbrella" of a company does not allow you to be in the field, and can be subject to those fines of the Ute Tribe Severance Tax Ordinance.
- Any deviation of submitted APD's and ROW applications the Companies will notify the Ute Tribe and BIA in writing and will receive written authorization of any such change with appropriate authorization.
- Bill Barrett Corporation will implement a "Safety and Emergency Plan." The Company's safety director will ensure its compliance.
- All Company employees and/or authorized personnel (sub-contractors) in the field will have approved applicable APD's, COA's, and/or ROW permits/authorizations on their person(s) during all phases of construction.
- All vehicular traffic, personnel movement, construction/restoration operations should be confined to the area examined and approved, and to the existing roadways and/or evaluated access routes.
- The personnel from the Ute Tribe Energy & Minerals Department should be notified should cultural remains from subsurface deposits be exposed or identified during construction. All construction will cease.
- Upon completion of Application for Corridor Right-Way, the company will notify the Ute Tribe Energy & Minerals Department, so that a Tribal Technician can verify Affidavit of Completion.

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# DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

#### SITE SPECIFIC DOWNHOLE COAs:

- A formation integrity test shall be performed at the surface casing shoe.
- Gamma Ray Log shall be run from Total Depth to Surface.
- To effectively protect useable water, cement for the long string is required to be brought 200 feet above the surface casing shoe

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

### DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the
  daily drilling report. Components shall be operated and tested as required by Onshore Oil &
  Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be
  performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be
  reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.

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- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water
  is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM
  Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the <u>top of cement</u> and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well by CD (compact disc).
   This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

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### **OPERATING REQUIREMENT REMINDERS:**

• All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at <a href="https://www.ONRR.gov">www.ONRR.gov</a>.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
  notified when it is placed in a producing status. Such notification will be by written
  communication and must be received in this office by not later than the fifth business day
  following the date on which the well is placed on production. The notification shall provide, as a
  minimum, the following informational items:
  - o Operator name, address, and telephone number.
  - Well name and number.
  - Well location (¼¼, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - o Unit agreement and/or participating area name and number, if applicable.
  - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if

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performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field
  Office Petroleum Engineers will be provided with a date and time for the initial meter calibration
  and all future meter proving schedules. A copy of the meter calibration reports shall be
  submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API
  standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All
  measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted
  to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs
  first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be
  adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively
  sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
  lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of
  a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval
  may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
  equipment shall be removed from a well to be placed in a suspended status without prior
  approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30
  days, prior approval of the BLM Vernal Field Office shall be obtained and notification given
  before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.